ABSTRACT OF THE DISCLOSURE

A solid state imag pickup device includes light-receiving circuitry having a plurality of light-receiving cells arranged in a matrix. Apparatus is provided for reading and storing electrical signals output by the light-receiving circuitry, and includes (1) a first memory for reading bright signals out of the light-receiving cells arranged in a row for storing the bright signals for a horizontal scanning period, (2) a second memory for reading dark signals out of the light-receiving cells arranged in the row for storing the dark signal for the horizontal scanning period, and (3) a readout circuit for reading the bright and dark signals stored in the first and second memories simultaneously. A removing circuit is provided for removing fixed pattern noise by simultaneously processing the bright and dark current signals read out from the first and second memories. Preferably, this removing circuit comprises a differential amplifier. Also, the light receiving cells and the reading and storing apparatus are preferably provided on a single semiconductor substrate.